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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,090	02/13/2004	Toshimi Watanabe	118659	5331
25944	7590	12/21/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER PRABHAKHER, PRITHAM DAVID	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 12/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/777,090	Applicant(s) WATANABE, TOSHIMI	
	Examiner Pritham Prabhakher	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/13/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/09/2007 have been fully considered but they are not persuasive.

1. In regard to independent Claim 1, the applicant asserts that the Chubachi (US Patent No.: 6700618B1) fails to disclose or suggest a first filter device that removes a frequency component equal to or lower than a first frequency from image-capturing signals obtained at pixels corresponding to a focus area of the image capturing element, and a second filter device that removes from the image-capturing signals obtained at a frequency component equal to or lower than a second frequency which is higher than the first frequency, as recited in claim 1 (Page 1 of Arguments). The applicant further argues that the base clipping circuits (203a and 203b) of Chubachi are not functionally equivalent to the filters disclosed in claim 1 and cannot be reasonably equated with the claimed filter devices.

The examiner respectfully disagrees with this assertion. In the opinion of the examiner, the base clipping circuits 203a and 203b serve the purposes of a first and second filter device, because they filter out components (most likely noise). As mentioned in page 3 of the office action (06/08/20007), the base clipping circuit 203a removes frequency components equal to or lower than a threshold value T_a that is output from the ABS circuit 202. Base clipping circuit 203b removes frequency components less than or equal to threshold value T_b . T_b is higher than the first frequency T_a , **Figure 3 and Column 7, Lines 10-16 of Chubachi**. The examiner would

like to point out that noise is a frequency component and the base clipping circuits of Chubachi removes this noise from the image capturing signals. Therefore, in the examiner's opinion, the filter and base clipping circuit in this instance are *functionally* the same and can *reasonably be equated*.

2. On Page 2 of the arguments section, the applicant also asserts that Chubachi fails to disclose the evaluation calculation device and the determination device recited in claim 1. The applicant asserts that there is no teaching that considers the degree of change of the integrating values of the signals from the first filter device and the second filter device or that a focus match decision is made based on the degree of change.

The examiner disagrees with this assertion. In the opinion of the examiner, this particular claim language is not seen in claim 1 and therefore the Chubachi reference still reads on the language in claim 1.

3. For the reasons mentioned above, claim 1 will be rejected with the cited art as it was in the previous office action dated 06/08/2007.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Autofocus camera capable of calculating a focus match state".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Chubachi

(US Patent No.: 6700618B1)

*In regard to **Claim 1**, Chubachi teaches of a camera comprising:*

an image-capturing element that captures a subject image through a photographic lens (101 and 103 in Figure 1);

*a first filter device (Base clipping circuit 203a in Figure 3) that removes a frequency component equal to or lower than a first frequency (Ta) from image-capturing signals obtained at pixels corresponding to a focus area of the image-capturing element (The base clipping circuit 203a removes frequency components equal to or lower than a threshold value Ta that is output from the ABS circuit 202, **Figure 3 and Column 7, Lines 10-16**);*

a second filter device (Base clipping circuit 203b in Figure 3) that removes from the image-capturing signals a frequency component equal to or lower than a second frequency (Tb) which is higher than the first frequency (Base clipping circuit 203b removes frequency components less than or equal to threshold value Tb. Tb (second

frequency) is higher than the first frequency (T_a), **Figure 3 and Column 7, Lines 10-16**);

a lens drive signal generation device that generates a lens drive signal used to move a focus lens (Lens drive circuit 110 is used to move a focus lens for focusing, **Column 4, Lines 49-52 and Figure 1**);

an evaluation value calculation device (computing circuit 205 in Figure 3) that calculates integrating values of first image-capturing signals from which the frequency component has been removed at the first filter device and integrating values of second image-capturing signals from which the frequency component has been removed at the second filter device, each in correspondence to a predefined position of the focus lens (Integrators 204a and 204b integrate the values of the outputs of the filter devices 203a and 203b. Computing circuit 205 calculates and evaluates the integrating values. Each is done to a predefined position of the focus lens, **Column 6, Lines 61 et seq. and Column 7, Lines 1-2 and 16-20. Also, see Figure 3**);

a lens position calculation device that calculates a focus match lens position based upon one of a set of the integrating values of the first image-capturing signals (image capturing signals from integrator 204a) and a set of the integrating values of the second image-capturing signals (image capturing signals from integrator 204b) calculated by the evaluation value calculation device (Computing circuit 205 also functions as a lens position calculation device in determining the focus point (focus match lens position) based on values from the integrators (points where the maximum

*values of the outputs of each integrator are coincident with each other), **Column 7, Lines 21-28**); and*

*a determination device that makes a true/false decision (maximum/not maximum) with regard to a focus match position, calculated by the lens position calculation device, based upon a change manifested by the integrating values of the first image-capturing signals and a change manifested by the integrating values of the second image-capturing signals between predefined positions taken by the focus lens (A determination is made in the computing circuit 205 of the automatic focus-detecting circuit 113 (determination device) as to whether the points where each output of the integrators 204a and 204b are at a maximum (true) or not (false), **Column 7, Lines 21-28**).*

Allowable Subject Matter

Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pritham Prabhakher whose telephone number is 571-270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

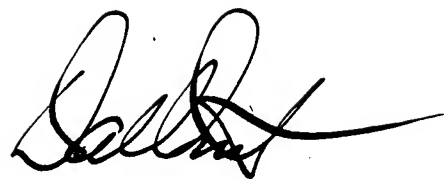
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Pritham David Prabhakher
Patent Examiner
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Pritham . D. Prabhakher

A handwritten signature in black ink, appearing to read 'David Ometz', with a stylized, flowing script.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER